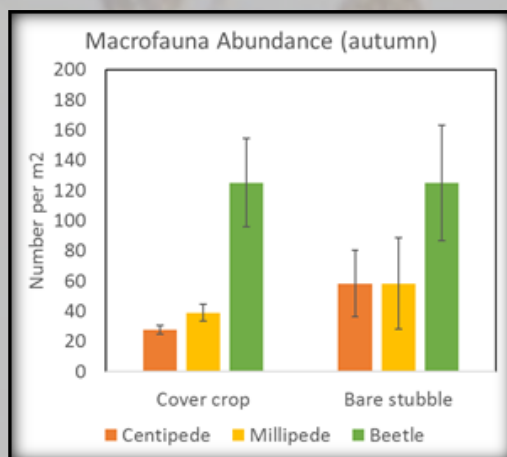


3. The role of soil biology in crop nutrition

This review looks at the importance of soil biology in plant nutrition and how it aids crop growth and yield. The report emphasises the importance of *soil biology in recycling plant nutrients* and looks in detail at bacteria, fungi and mycorrhizae, protozoa, nematodes, arthropods and earthworms.



Where the Allerton Project has conducted *soil biology studies* in cover crops (see graph), they have been included to illustrate some of the aspects of soil activity.

Most of the biodiversity within agricultural systems resides in the soil (Brussaard et al., 2007) and *arable cultivations* will have an impact on soil biology.



Practices beneficial for soil biology:

- Reduced tillage
- Reduced mineral inputs
- Increased organic inputs and maintenance organic matter
- Compaction avoidance and alleviation
- Maintenance of good drainage and avoidance of waterlogging
- Maintain soil cover and surface residues i.e. through cover-crops

